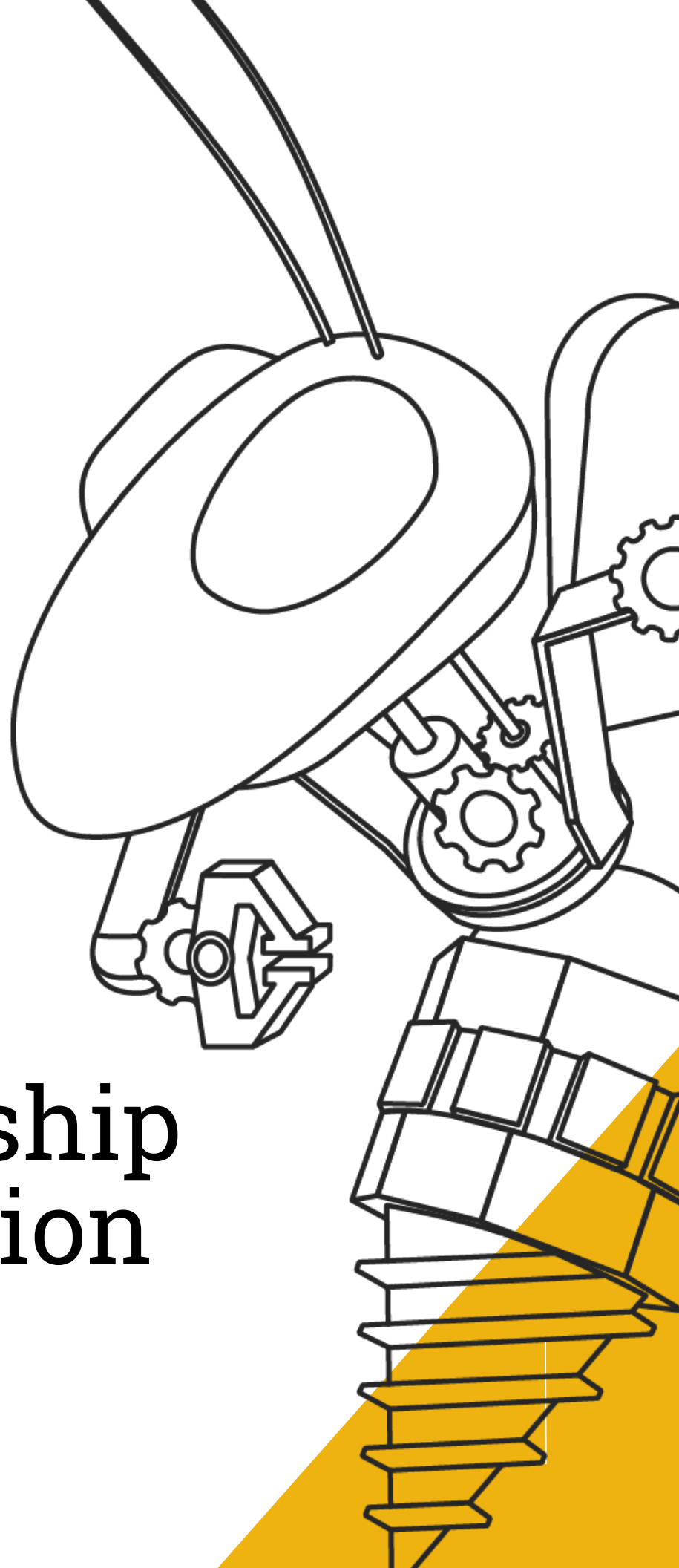


ROBOJACKETS

COMPETITIVE ROBOTICS AT GEORGIA TECH

Sponsorship Information Packet

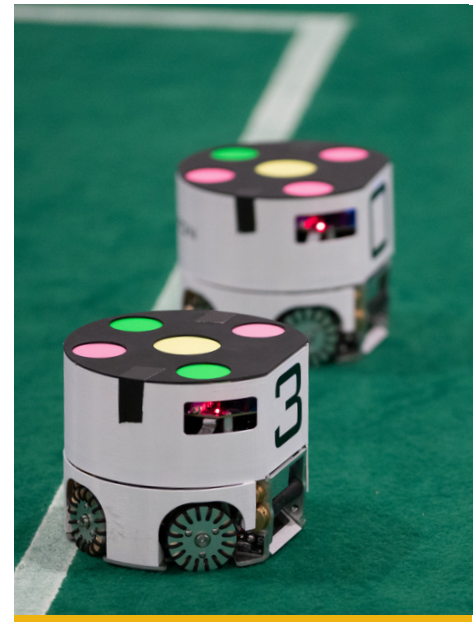
2023 - 2024



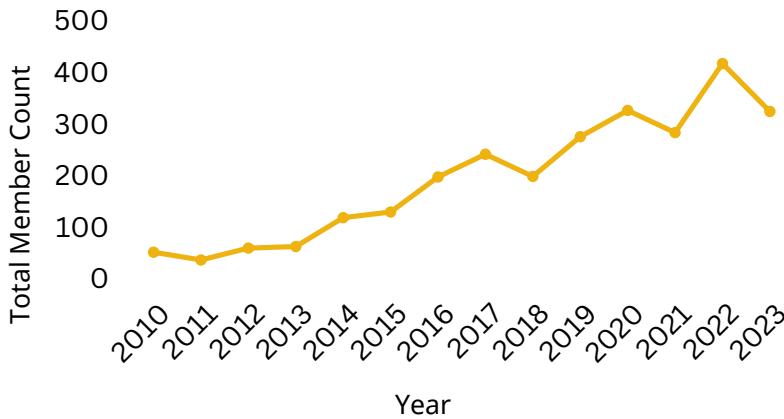
We strive to **promote, educate, and advance** the field of robotics.

RoboJackets was founded as a club at Georgia Tech over 20 years ago. From one small group of students interested in combat robotics, we have grown to over 300 students, faculty, and alumni committed to advancing the field of robotics across several spheres. Our members work year-round to compete in international collegiate robotics challenges and support local STEM communities.

As an organization, we believe strongly in our mission statement: promote, educate, and advance. RoboJackets encourages its members to immerse themselves in the RoboJackets experience by advancing the field of robotics through our multifaceted approach. We strive to raise awareness for cutting-edge technology in robotics, encourage the next generation of engineers through community involvement, and challenge technical boundaries by competing in competitions all over the world!

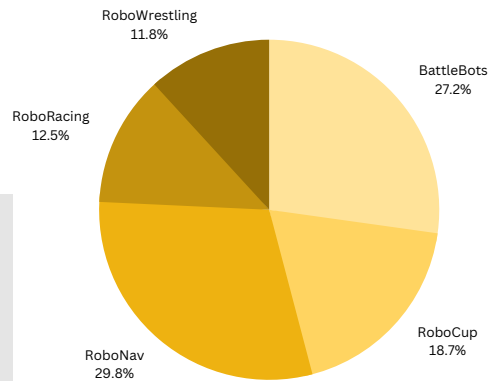


Take a look at RoboJackets by the numbers.



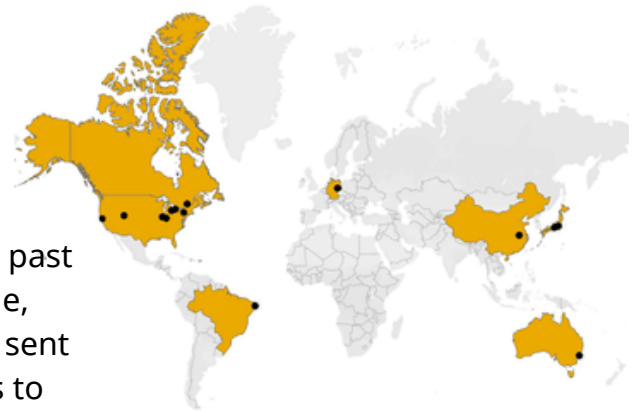
324 members

are divided amongst 5 teams, with RoboNav being the largest.



Since 2011, our membership has grown by **800%**. Now, RoboJackets is a thriving organization with five different competitive teams developing a wide range of robots.

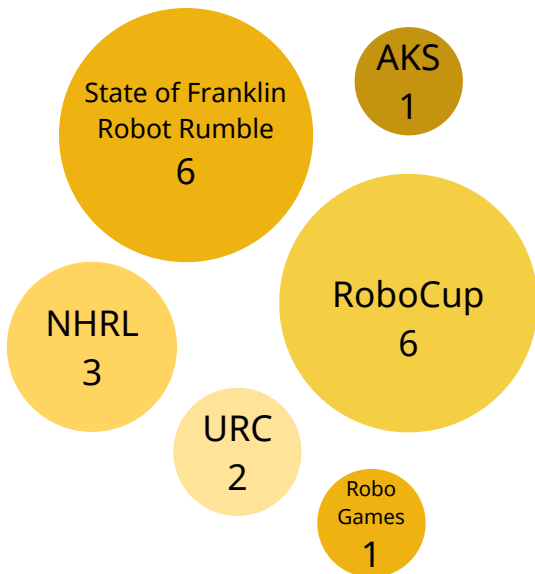
This past year we developed **19 robots** to compete in diverse events across the globe.



In the past decade, we've sent teams to

7 countries

RoboCup and All Japan RobotSumo yielded the furthest distance traveled, with their 2019 competitions in Sydney, Australia and Tokyo, Japan, respectively.



We are home to 5 different competitive teams.

BattleBots

The BattleBots team designs custom manual combat robots that aim to disable or destroy their opponents. The team focuses on stress analysis, mechanical design, and manufacturing.

4th place at NHRL (competing in World Championships)



RoboCup

The RoboCup team competes in the Small Size League (SSL) of RoboCup, an autonomous robot soccer competition. The team focuses on artificial decision-making and multi-agent cooperation.

1 of only 2 American teams to compete in RoboCup SSL



RoboNav

The RoboNav team (newly) competes in the University Rover Challenge (URC) with a Mars rover and autonomous helicopter duo. The team focuses on dextrous manipulation, rough terrain traversal, scientific analysis, and path-planning.

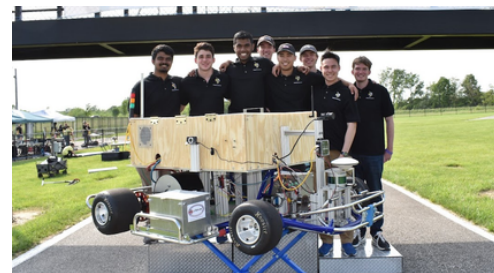
3rd place in IGVC design (former competition)



RoboRacing

The RoboRacing team focuses on high-speed autonomous navigation through a track. The team works on two different sizes of robots, one the size of an RC car and the other a full-size go-kart.

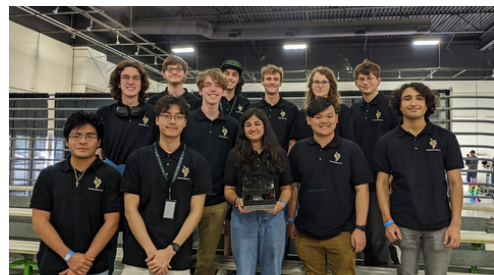
1st place at IARRC | 2nd place at EVGP World Finals



RoboWrestling

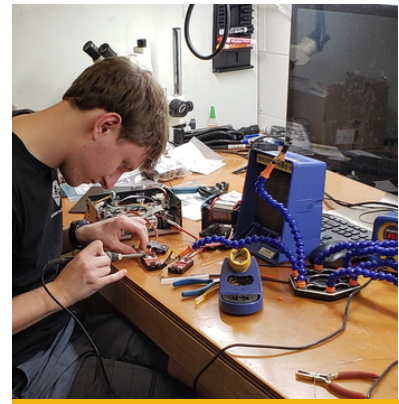
The RoboWrestling team competes in RoboGames and the All Japan Robot Sumo tournament. The team develops robots that autonomously push an opponent out of a ring in order to win the match.

2nd place at RoboGames | Top 32 at All Japan Robot Sumo



Our members go through training to gain **valuable skills and experience**

RoboJackets has multiple avenues to pass down knowledge to new members, with the most notable being our general training. We have created a program that uses a focused curriculum to give new members the skills they need to contribute to our teams. After training ends, our new members get rolled into our projects and begin to tackle real issues, with older members acting as mentors.



Throughout our members' time in RoboJackets, they learn various mechanical, electrical, and software skills and tools, which allows them to contribute to not only our teams but in a professional environment as well.

RoboJackets has provided me with real-world engineering experience, beyond what I learned in the classroom. I credit the projects and training to helping me gain technical background I needed to succeed during my internships.

- Arvind Srinivasan, RoboCup

Mechanical

- Autodesk Inventor
- Part design
- CAM design
- Stress calculations
- Finite element analysis
- CNC machining
- Rapid prototyping and conventional machining:
 - Manual mills
 - Lathes
 - Waterjet
 - 3D printing

Software

- Specific tools and languages
 - C++
 - Python
 - GitHub
 - CircleCI
 - ROS/ROS2
- Artificial Intelligence
- Multi-agent planning
- Computer vision
- SLAM
- Machine learning
- Sensor fusion

Electrical

- Microcontrollers and FPGAs
- Embedded systems firmware
- Autodesk EAGLE
- PCB design
- Board assembly
- Debugging using test equipment:
 - Oscilloscopes
 - Digital logic analyzers
 - Multimeters

Our members work with other groups to promote robotics within our community.



RoboJackets hosts the Georgia FIRST FRC Kick-Off. This event is attended by over 1,200 students and features the competition announcement along with robot-building workshops.

As volunteers...

We serve as a critical juncture between Georgia Tech, corporate sponsors, and the STEM community in Georgia. Through over 1,000 hours of service across the organization, we impact upwards of 4,000 students.

As mentors...

We mentored teams of high school students that placed second in the GA State Championship and 34th at the World Championship. Additionally, we partner with The Children's School (TCS) to guide middle school students through the process of building their own combat robots!

As leaders...

The RoboJackets community produces leaders that have managed dozens or even hundreds of people. Student leaders manage sponsorship relations and team budgets totaling upwards of \$100,000.

Mentorship has been a pillar during my four years here. Every year, we have a deep impact upon youth robotics. I'm thrilled to have been a part of that by putting my time toward not just my future but the future of others as well.

- Wallace Gray, BattleBots



RoboJackets gave me a place where I belong. I have made great friendships, developed new electrical skills, and learned to manage a team of over 40 people. RoboJackets is where I learned to combine engineering and leadership.

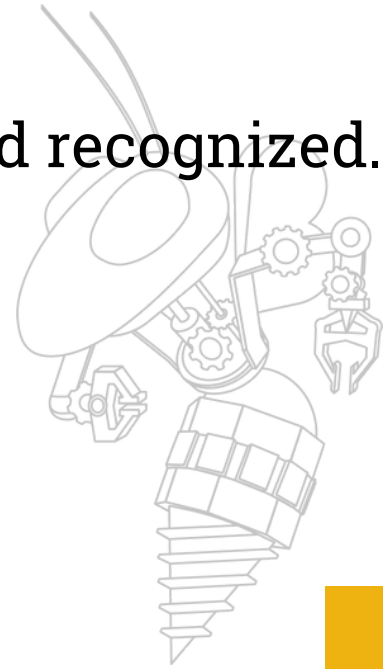
- Marine Maisonneuve, RoboCup



Any level of support

is appreciated and recognized.

We cannot continue to empower local communities and push the technical envelope without generous donations from our sponsors. RoboJackets uses funding to build robots, send students to competitions, and provide resources to the K-12 robotics community. Monetary donations go through the Georgia Tech Foundation, making them tax deductible. RoboJackets recognizes both cash and in-kind donations equally.



Platinum

\$20,000 +

Gold benefits and...

- Opportunity to present at outreach events.

Gold

\$10,000 +

Silver benefits and...

- One additional annual recruiting session with the team.
- Personal introduction to team leaders and senior members.

Silver

\$5,000 +

Bronze benefits and...

- Logo on RoboJackets robot.
- One annual recruiting session with the team.

Bronze

\$1,000 +

Friend benefits and...

- Access to resume book.
- Logo displayed in RoboJackets workshop.
- Logo on RoboJackets team shirts.

Friend

\$200 +

- Tour of the space.
- Logo on RoboJackets website.

If you or your company are interested in pursuing a partnership with RoboJackets, please contact us. We look forward to answering any questions you may have during a tour of the shop space or a call with RoboJackets leadership!

Email: hello@robojackets.org | **Website:** robojackets.org

Thank you to our current sponsors!

Platinum



Gold



Silver



Bronze



Friend

